

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:** Please amend the claims as follows

**We claim:**

**Claim 1. (Currently Amended)** An isolated nucleic acid molecule which is selected from the group comprising:

- a) a nucleic acid molecule comprising a polynucleotide sequence of SEQ ID NO: 1 ~~nucleotide sequence according to SEQ ID No. 1,~~
- b) a nucleic acid molecule comprising a polynucleotide sequence having sufficient homology to be functionally analogous to a the polynucleotide sequence of ~~according to a~~,
- c) a nucleic acid molecule which, as a consequence of the genetic code, is ~~degenerated into~~ degenerate to a the polynucleotide sequence of ~~nucleotide sequence according to a~~ or b), or and
- d) a nucleic acid molecule ~~according to a nucleotide sequence of a) - c),~~ which is modified and functionally analogous to a the polynucleotide sequence of ~~nucleotide sequence according to a~~ through c), wherein said functionally analogous nucleic acid molecule comprises a deletion, addition, substitution, translocation, inversion and/or insertion in said polynucleotide sequence as a result of deletions, additions, substitutions, translocations, inversions and/or insertions.

**Claim 2. (Currently Amended)** The nucleic acid molecule according to claim 1, ~~characterized in that wherein~~ the polynucleotide sequence specified under b) has at least 80%~~[[,]]~~ ~~preferably 90%~~ homology to a polynucleotide sequence as specified under a).

**Claim 3. (Currently Amended)** The nucleic acid molecule according to claim 1,

characterized in that wherein said molecule is a genomic DNA, a cDNA and/or an RNA.

**Claim 4. (Previously Presented)** A vector comprising a nucleic acid molecule according to Claim 1.

**Claim 5. (Previously Presented)** A host cell comprising the vector according to claim 4.

**Claim 6. (Previously Presented)** A polypeptide encoded by a nucleic acid molecule according to Claim 1.

**Claim 7. (Previously Presented)** A recognition molecule directed against a nucleic acid molecule according to Claim 1 or, a vector, or a host cell based thereon or a polypeptide encoded thereby.

**Claim 8. (Currently Amended)** The recognition molecule according to claim 7, ~~characterized in that wherein~~ said molecule is an antibody, an antibody fragment and/or an antisense construct, ~~particularly an RNA interference molecule.~~

**Claim 9. (Currently Amended)** A pharmaceutical composition, ~~characterized in that said composition comprises~~ comprising a nucleic acid molecule according to Claim 1, a vector, or a host cell based thereon, a polypeptide encoded thereby or a recognition molecule corresponding thereto, ~~optionally~~ together with a pharmaceutically tolerable carrier.

**Claim 10. (Currently Amended)** A kit, ~~characterized in that said kit comprises~~ which comprises a nucleic acid molecule according ~~any of claims 1 to 3~~ Claim 1, a vector ~~according to claim 4, or~~ a host cell ~~according to claim 5~~ based thereon, a polypeptide ~~according to claim 6 and/~~ encoded thereby or a recognition molecule ~~according to any of claims 7 or 8~~ corresponding thereto, or a pharmaceutical composition based thereon and optionally together with a pharmaceutically tolerable carrier, ~~and/or the pharmaceutical composition according to claim 9.~~

**Claim 11. (Currently Amended)** A method for the detection of an AKAP-PKA interaction, comprising the steps of:

- a) providing
  - (i) a first vector comprising a nucleic acid molecule according to Claim 1 and a first marker, and
  - (ii) a second vector comprising a second nucleic acid molecule which encodes a regulatory subunit of a protein kinase and a second marker,
- b) incorporating the first and second markers in a cell, thereby transfecting the cell, and
- c) performing a fluorescence resonance energy transfer (FRET) measurement, thereby detecting the AKAP-PKA interaction.

**Claim 11. (Currently Amended)** The method according to claim 11, characterized in that comprising detecting an interaction between AKAP and RII $\alpha$ , RII $\beta$ , RI $\alpha$  and/or RI $\beta$  is detected.

**Claim 13. (Currently Amended)** ~~The method according to Claim 11, characterized in that~~ A method for the identification of an inhibitor of AKAP and/or a PKA is identified in such a way that the method is performed with and without addition comprising detecting interaction of AKAP and PKA according to the method of claim 11 in the absence or presence of the inhibitor to be investigated, thereby providing an indication as to the inhibitor of AKAP and/or PKA.

**Claim 14. (Currently Amended)** ~~The method according to Claim 11, characterized in that~~ A method for the examination of membrane-permeable permeability of a test molecule is identified in such a way that comprising producing a conjugate of the membrane-permeable test molecule to be investigated and a membrane-permeable AKAP-PKA inhibitor is produced and detecting AKAP-PKA interaction according to the method of claim 11 with and without in the absence or presence of said conjugate or said test molecule is detected.

**Claim 15. (Currently Amended)** Use of A method for the detection of an AKAP-

PKA interaction or for the identification of an inhibitor of AKAP and/or PKA and/or of a membrane-permeable peptide comprising employing a nucleic acid molecule according to Claim 1, a vector, or a host cell based thereon, a polypeptide encoded thereby, a recognition molecule corresponding thereto, a pharmaceutical composition based thereon, or a kit based thereon ~~or a method for the detection of an AKAP-PKA interaction or of an inhibitor of AKAP and/or PKA and/or of a membrane-permeable peptide.~~

**Claim 16 (New)** The nucleic acid molecule according to claim 1, wherein the polynucleotide sequence specified under b) has at least 90% homology to the polynucleotide sequence as specified under a).

**Claim 17. (New)** The recognition molecule according to claim 8 which is an RNA interference molecule.